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October 25, 2007

State Budget and Control Board South Carolina Retirement Systems Columbia, South Carolina 29211

Re: Certification and Statement Regarding Actuarial Valuations as of July 1, 2006

Dear Members of the Board:

#### **Applicable Laws**

The laws governing the operation of the various Retirement Systems provide that actuarial valuations of the assets and liabilities of the Systems shall be made annually for the South Carolina Retirement System and the Police Officers Retirement System and no less frequently than biennially for the General Assembly Retirement System and the Judges and Solicitors Retirement System. At your request, we have conducted an annual actuarial valuation of each of the four separate Retirement Systems as of July 1, 2006.

#### **Funding Objective**

A funding objective of the Systems is that contribution rates will remain relatively level over time as a percentage of payroll. As these contribution rates are set by the Board, the valuation is used to determine the sufficiency of the contributions to maintain or improve the measures of the Systems' funding progress (i.e. funded ratio, funding period) and provide for the complete funding of all actuarial liabilities within 30 years.

#### **Funding Methodology**

The entry age normal actuarial cost method determines each system's normal cost, the cost of the current year's benefit accrual, as a level percentage of the active member's payroll. Additionally, the method determines the actuarial liability, the value of benefits already earned by active and retired members due to past service. A smoothing technique is utilized to produce a market-related actuarial value of assets with the goal of dampening the impact of investment return volatility. The *funded ratio* is the actuarial value of assets as a percentage of the actuarial liability.

An unfunded actuarial liability exists to the extent a System's actuarial liability exceeds its actuarial value of assets. The contribution amount in excess of a system's normal cost is the level percentage of payroll available to amortize an unfunded actuarial liability. The System's funding period is the resulting number of years necessary to fully amortize an unfunded actuarial liability with the available contributions.

#### **Assumptions**

Actuarial assumptions are necessary to estimate the future economic and demographic experience of the Systems. The actuarial assumptions were recommended by the prior actuary and adopted by the State Budget and Control Board based on a review of the System's experience completed during Fiscal Year 2004. Certain assumptions have been modified in order to recognize specific emerging trends in experience. We have reviewed these assumptions and believe they are reasonable.

The current actuarial assumptions and methods for each System are in accordance with the applicable Actuarial Standards of Practice, as well as the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans.

The results and conclusions of this report are only valid for the July 1, 2006 plan year and should not be interpreted as applying in future years. Differences between our projections and actual amounts depend on the extent to which future experience conforms exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

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#### **Data Reliance**

In preparing the valuations, we, as the actuary, relied on data provided by the Systems. In fulfillment of the scope of our assignment, we performed a limited review of the data for consistency and reasonableness and did not find material defects in the census data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

#### Supporting Schedules

Our firm, as actuary, is responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section, beginning with the information for the July 1, 2004 to June 30, 2006 period. Information for previous years was supplied by other actuarial firms employed by the Systems at that time. Milliman's work product was prepared exclusively for the South Carolina Retirement Systems for a specific and limited purpose. It is a complex, technical analysis that assumes a high level of knowledge concerning the Systems' operations, and uses data, which Milliman has not audited. It is not for the use or benefit of any third party for any purpose. Any third party recipient of Milliman's work product who desires professional guidance should not rely upon Milliman's work product, but should engage qualified professionals for advice appropriate to its own specific needs.

#### Certification

Based on the results of the four July 1, 2006 valuations, we believe that the valuations appropriately reflect each plan's long term obligations and the current contribution levels are sufficient to fund the liabilities of each plan over a reasonable time frame, and based on these criteria may be deemed actuarially sound.

I, Robert Dezube, am a consulting actuary for Milliman. I am also a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. On the basis of the foregoing, I certify that, to the best of my knowledge this report is complete and accurate and has been prepared in accordance with South Carolina's statutes and generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

Respectfully submitted,

Milliman, Inc.

Robert S. Dezube, F&A, MAAA Principal and Consulting Actuary

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# **South Carolina Retirement System Valuation Balance Sheet**

1	Accepta			July 1, 2006	
1.	<u> </u>	<u>assets</u>			
	a.	Current Assets (Actuarial Value)			
		i) Employee Annuity Savings Fund	\$	5,229,175	
		ii) Employer Annuity Accumulation Fund		17,064,271	
		iii) Total Current Assets	\$	22,293,446	
	b.	Present Value of Future Member Contributions	\$	3,313,857	
	c.	Present Value of Future Employer Contributions			
		i) Normal Contributions	\$	2,041,508	
		ii) Accrued Liability Contributions		9,725,073	
		iii) Total Future Employer Contributions	\$	11,766,581	
	d.	Total Assets	\$	37,373,884	
2.	<u>Lia</u>	<u>bilities</u>			
	a.	Employee Annuity Savings Fund			
		i) Past Member Contributions	\$	5,229,175	
		ii) Present Value of Future Member Contributions		3,457,552	
		iii) Total Contributions to Employee Annuity			
		Savings Fund	\$	8,686,727	
	b.	Employer Annuity Accumulation Fund			
		i) Benefits Currently in Payment	\$	17,800,254	
		ii) Benefits to be Paid to Current Active Members		10,886,903	
		iii) Total Benefits Payable from Employer Annuity			
		Accumulation Fund	\$	28,687,157	
	c.	Total Liabilities	\$	37,373,884	

# **Police Officers Retirement System Valuation Balance Sheet**

			Ju	uly 1, 2006
1.	A	<u>assets</u>		
	a.	Current Assets (Actuarial Value)		
		i) Employee Annuity Savings Fund	\$	622,008
		ii) Employer Annuity Accumulation Fund		2,313,833
		iii) Total Current Assets	\$	2,935,841
	b.	Present Value of Future Member Contributions	\$	473,750
	c.	Present Value of Future Employer Contributions		
		i) Normal Contributions	\$	499,696
		ii) Accrued Liability Contributions		530,440
		iii) Total Future Employer Contributions	\$	1,030,136
	d.	Total Assets	\$	4,439,727
2.	<u>Lia</u>	<u>bilities</u>		
	a.	Employee Annuity Savings Fund		
		i) Past Member Contributions	\$	622,008
		ii) Present Value of Future Member Contributions		473,750
		iii) Total Contributions to Employee Annuity		
		Savings Fund	\$	1,095,758
	b.	Employer Annuity Accumulation Fund		
		i) Benefits Currently in Payment	\$	1,668,449
		ii) Benefits to be Paid to Current Active Members		1,675,520
		iii) Total Benefits Payable from Employer Annuity		
		Accumulation Fund	\$	3,343,969
	c.	Total Liabilities	\$	4,439,727

# **General Assembly Retirement System Valuation Balance Sheet**

			July	1, 2006
1.	A	<u>ssets</u>		
	a.	Current Assets (Actuarial Value)		
		i) Employee Annuity Savings Fund	\$	8,094
		ii) Employer Annuity Accumulation Fund		37,981
		iii) Total Current Assets	\$	46,075
	b.	Present Value of Future Member Contributions	\$	2,337
	c.	Present Value of Future Employer Contributions		
		i) Normal Contributions	\$	1,888
		ii) Accrued Liability Contributions		23,659
		iii) Total Future Employer Contributions	\$	25,547
	d.	Total Assets	\$	73,959
2.	<u>Lia</u>	<u>bilities</u>		
	a.	Employee Annuity Savings Fund		
		i) Past Member Contributions	\$	8,094
		ii) Present Value of Future Member Contributions*		2,337
		iii) Total Contributions to Employee Annuity		
		Savings Fund	\$	10,431
	b.	Employer Annuity Accumulation Fund		
		i) Benefits Currently in Payment	\$	51,870
		ii) Benefits to be Paid to Current Active Members		11,658
		iii) Total Benefits Payable from Employer Annuity		
		Accumulation Fund	\$	63,528
	c.	Total Liabilities	\$	73,959

<sup>\*</sup>Includes future special contributors

# Judges and Solicitors Retirement System Valuation Balance Sheet

			Jul	ly 1, 2006
1.	<u> </u>	<u>assets</u>		
	a.	Current Assets (Actuarial Value)		
		i) Employee Annuity Savings Fund	\$	21,857
		ii) Employer Annuity Accumulation Fund		102,980
		iii) Total Current Assets	\$	124,837
	b.	Present Value of Future Member Contributions	\$	10,708
	c.	Present Value of Future Employer Contributions		
		i) Normal Contributions	\$	15,333
		ii) Accrued Liability Contributions		86,547
		iii) Total Prospective Employer Contributions	\$	101,880
	d.	Total Assets	\$	237,425
2.	<u>Lia</u>	<u>bilities</u>		
	a.	Employee Annuity Savings Fund		
		i) Past Member Contributions	\$	21,857
		ii) Present Value of Future Member Contributions		10,708
		iii) Total Contributions to Employee Annuity		
		Savings Fund	\$	32,565
	b.	Employer Annuity Accumulation Fund		
		i) Benefits Currently in Payment	\$	112,823
		ii) Benefits to be Paid to Current Active Members		92,037
		iii) Total Benefits Payable from Employer Annuity		
		Accumulation Fund	\$	204,860
	c.	Total Liabilities	\$	237,425

## South Carolina Retirement System Results of the Valuation as of July 1, 2006 (Dollar amounts expressed in thousands)

		July 1, 2006	
1.	Actuarial Present Value of Future Benefits		
	a. Present Retired Members and Beneficiaries	\$	17,800,254
	b. Present Active and Inactive Members		19,573,630
	c. Total Actuarial Present Value	\$	37,373,884
2.	Present Value of Future Normal Contributions		
	a. Employee	\$	3,313,857
	b. Employer		2,041,508
	c. Total Future Normal Contributions	\$	5,355,365
3.	Actuarial Liability	\$	32,018,519
4.	Current Actuarial Value of Assets	\$	22,293,446
5.	<u>Unfunded Actuarial Liability</u>	\$	9,725,073
6.	<u>Unfunded Actuarial Liability Rates</u>		
	a. Active Members		3.91%
	b. TERI Members		14.55%
	c. ORP Members		3.05%
	d. Reemployed Members		14.55%
7.	Unfunded Actuarial Liability Liquidation Period		30 years

# Police Officers Retirement System Results of the Valuation as of July 1, 2006 (Dollar amounts expressed in thousands)

		July 1, 2006	
1.	Actuarial Present Value of Future Benefits		
	a. Present Retired Members and Beneficiaries	\$	1,668,449
	<ul><li>b. Present Active and Inactive Members</li><li>c. Total Actuarial Present Value</li></ul>	\$	2,771,278 4,439,727
			, ,
2.	<b>Present Value of Future Normal Contributions</b>		
	a. Employee	\$	473,750
	b. Employer		499,696
	c. Total Future Normal Contributions	\$	973,446
3.	Actuarial Liability	\$	3,466,281
4.	<u>Current Actuarial Value of Assets</u>	\$	2,935,841
5.	<u>Unfunded Actuarial Liability</u>	\$	530,440
6.	<u>Unfunded Actuarial Liability Rates</u>		3.16%
7.	Unfunded Actuarial Liability Liquidation Period		18 years

## General Assembly Retirement System Results of the Valuation as of July 1, 2006 (Dollar amounts expressed in thousands)

		July 1, 2006	
1.	Actuarial Present Value of Future Benefits		
	<ul><li>a. Present Retired Members and Beneficiaries</li><li>b. Present Active and Inactive Members</li><li>c. Total Actuarial Present Value</li></ul>	\$ <del>\$</del>	51,870 22,089 73,959
2.	Present Value of Future Normal Contributions		
	<ul><li>a. Employee</li><li>b. Special Contributors</li><li>c. Employer</li><li>d. Total Future Normal Contributions</li></ul>	\$ 	2,088 248 1,888 4,224
3.	Actuarial Liability	\$	69,734
4.	<u>Current Actuarial Value of Assets</u>	\$	46,075
5.	<u>Unfunded Actuarial Liability</u>	\$	23,659
6.	Unfunded Actuarial Liability Liquidation Period		19 years

### Judges and Solicitors Retirement System Results of the Valuation as of July 1, 2006 (Dollar amounts expressed in thousands)

		Jul	y 1, 2006
1.	Actuarial Present Value of Future Benefits		
	<ul><li>a. Present Retired Members and Beneficiaries</li><li>b. Present Active and Inactive Members</li></ul>	\$	112,823 124,602
	c. Total Actuarial Present Value	\$	237,425
2.	Present Value of Future Normal Contributions		
	<ul><li>a. Employee</li><li>b. Employer</li></ul>	\$	10,708 15,333
	c. Total Future Normal Contributions	\$	26,041
3.	Actuarial Liability	\$	211,384
4.	<u>Current Actuarial Value of Assets</u>	\$	124,837
5.	<u>Unfunded Actuarial Liability</u>	\$	86,547
6.	<u>Unfunded Actuarial Liability Rates</u>		27.72%
7.	Unfunded Actuarial Liability Liquidation Period		29 years

Note: On May 16, 2006, the Budget and Control Board adopted the recommended employer increase effective July 1, 2007. This was necessary to maintain a 30-year amortization period.

# **South Carolina Retirement System Summary of Actuarial Assumptions and Methods**

#### 1. <u>Investment Return to be Earned by Fund</u>

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

#### 2. <u>Salary Increases</u>

Salary increases are assumed in accordance with the following representative rates:

	Annual I	Annual Ir	ncrease		
Years of Service	General Employees	Teachers	Years of Service	General Employees	Teachers
0	8.00%	8.00%	8	4.50%	4.75%
1	5.75%	8.00%	9	4.50%	4.75%
2	5.00%	5.50%	10	4.25%	4.75%
3	4.75%	5.25%	11	4.25%	4.50%
4	4.50%	5.00%	12	4.25%	4.40%
5	4.50%	5.00%	13	4.25%	4.40%
6	4.50%	5.00%	14	4.25%	4.40%
7	4.50%	4.75%	15+	4.00%	4.00%

#### 3. <u>Decrement Rates</u>

#### a. Service Retirement

		Annual Rates of			
			ed Service ement*		d Service ement
	<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
<b>Employees</b>	50	12%	14%		
	55	15%	18%	5%	10%
	60	20%	20%	5%	11%
	61	20%	20%	15%	15%
	62	30%	35%	27%	28%
	63	30%	30%	16%	20%
	64	30%	35%	22%	20%
	65	40%	40%		
	66	20%	25%		
	67	20%	25%		
	68	20%	25%		
	69	20%	25%		
	70	100%	100%		
Teachers	50	14%	15%		
	55	18%	25%	6%	9%
	60	25%	25%	14%	15%
	61	30%	40%	18%	20%
	62	20%	35%	25%	25%
	63	20%	25%	28%	20%
	64	35%	30%	28%	30%
	65	45%	40%		
	66	23%	23%		
	67	23%	23%		
	68	23%	23%		
	69	23%	23%		
	70	100%	100%		

\*Plus the following percentage in the year when they first become eligible for unreduced service retirement before age 65.

	General	
	<b>Employees</b>	<b>Teachers</b>
Male	30%	30%
Female	30%	30%

#### b. <u>Valuation of Teachers and Employees Retention Incentive (TERI)</u>

It is assumed that 40 percent of all members elect TERI coverage prior to age 60 and 60 percent elect between age 60 and 65 when first eligible for an unreduced retirement benefit. This is a change from the prior year. It is also assumed that members in TERI are exposed to adjusted retirement rates during TERI coverage and 100 percent terminate employment at the end of the TERI period (five years). The retirement rate is adjusted by the following schedule based on number of years since entering TERI:

Years Since Entering TERI Program	Multiple of Unreduced Retirement Table
0.00 - 0.99	50%
1.00 - 1.99	65%
2.00 - 2.99	80%
3.00 - 3.99	90%
4.00 - 4.99	100%
5.00	All members assumed to retire immediately

#### c. <u>In-Service Mortaility and Disability</u>

#### **Annual Rates of**

		Mor	tality		Disability				
	<u>Emp</u>	loyees_	<u>Teac</u>	chers	<u>Emp</u>	loyees_	<u>Teac</u>	<u>chers</u>	
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>	
25	0.04%	0.01%	0.03%	0.01%	0.06%	0.05%	0.04%	0.05%	
30	0.04%	0.02%	0.03%	0.01%	0.12%	0.07%	0.06%	0.07%	
35	0.08%	0.03%	0.06%	0.03%	0.17%	0.15%	0.08%	0.07%	
40	0.11%	0.05%	0.08%	0.04%	0.29%	0.19%	0.16%	0.13%	
45	0.15%	0.07%	0.11%	0.06%	0.40%	0.27%	0.26%	0.26%	
50	0.21%	0.11%	0.16%	0.09%	0.58%	0.46%	0.42%	0.42%	
55	0.30%	0.16%	0.23%	0.14%	0.92%	0.74%	0.68%	0.68%	
60	0.49%	0.26%	0.37%	0.22%	1.15%	1.12%	1.05%	1.05%	
64	0.70%	0.35%	0.53%	0.30%	1.44%	1.56%	1.31%	1.31%	

#### d. <u>Withdrawal Rates</u>

#### **Probability of Decrement Due to Withdrawal**

	Years of Service - Male Teachers										
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2964	0.2029	0.1384	0.0973	0.0721	0.0578	0.0513	0.0508	0.0518	0.0538	0.0560
30	0.2721	0.1922	0.1356	0.0990	0.0776	0.0662	0.0607	0.0577	0.0538	0.0477	0.0387
35	0.2531	0.1823	0.1316	0.0990	0.0805	0.0708	0.0657	0.0611	0.0540	0.0429	0.0273
40	0.2371	0.1730	0.1271	0.0979	0.0817	0.0730	0.0679	0.0619	0.0529	0.0390	0.0199
45	0.2239	0.1649	0.1228	0.0960	0.0811	0.0726	0.0669	0.0600	0.0503	0.0359	0.0167
50	0.2135	0.1587	0.1192	0.0936	0.0787	0.0698	0.0628	0.0553	0.0460	0.0335	0.0174
55	0.2063	0.1549	0.1168	0.0908	0.0742	0.0645	0.0557	0.0479	0.0401	0.0317	0.0222
60	0.1996	0.1518	0.1143	0.0865	0.0669	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Probability of Decrement Due to Withdrawal**

	Years of Service - Female Teachers										
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2299	0.1608	0.1209	0.1006	0.0892	0.0841	0.0827	0.0802	0.0731	0.0660	0.0601
30	0.2269	0.1664	0.1260	0.1015	0.0878	0.0802	0.0751	0.0696	0.0618	0.0527	0.0426
35	0.2171	0.1597	0.1208	0.0966	0.0830	0.0748	0.0682	0.0615	0.0536	0.0434	0.0303
40	0.2045	0.1477	0.1106	0.0885	0.0759	0.0683	0.0616	0.0551	0.0475	0.0368	0.0215
45	0.1930	0.1361	0.1001	0.0798	0.0685	0.0619	0.0561	0.0504	0.0435	0.0329	0.0163
50	0.1866	0.1296	0.0937	0.0738	0.0633	0.0570	0.0523	0.0478	0.0417	0.0317	0.0154
55	0.1879	0.1308	0.0935	0.0727	0.0626	0.0543	0.0509	0.0474	0.0420	0.0331	0.0190
60	0.1948	0.1379	0.0986	0.0758	0.0660	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Probability of Decrement Due to Withdrawal**

Years of Service - Male Employees											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.3288	0.2466	0.1902	0.1554	0.1345	0.1166	0.0963	0.0783	0.0650	0.0595	0.0662
30	0.2939	0.2211	0.1726	0.1425	0.1236	0.1089	0.0951	0.0821	0.0704	0.0603	0.0530
35	0.2678	0.1997	0.1553	0.1285	0.1122	0.1010	0.0916	0.0822	0.0716	0.0586	0.0424
40	0.2456	0.1804	0.1384	0.1140	0.1002	0.0922	0.0861	0.0791	0.0695	0.0549	0.0335
45	0.2257	0.1636	0.1233	0.1003	0.0882	0.0825	0.0781	0.0727	0.0639	0.0493	0.0266
50	0.2082	0.1501	0.1115	0.0891	0.0774	0.0717	0.0675	0.0626	0.0547	0.0419	0.0224
55	0.1942	0.1410	0.1041	0.0814	0.0691	0.0600	0.0543	0.0488	0.0419	0.0328	0.0212
60	0.1827	0.1351	0.1002	0.0770	0.0632	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

#### **Probability of Decrement Due to Withdrawal**

	Years of Service - Female Employees										
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2981	0.2459	0.2060	0.1772	0.1560	0.1385	0.1248	0.1159	0.1094	0.1030	0.0940
30	0.2710	0.2236	0.1864	0.1591	0.1395	0.1253	0.1145	0.1059	0.0970	0.0853	0.0688
35	0.2506	0.2015	0.1657	0.1410	0.1244	0.1130	0.1042	0.0958	0.0857	0.0712	0.0505
40	0.2329	0.1803	0.1451	0.1233	0.1101	0.1010	0.0935	0.0854	0.0748	0.0592	0.0367
45	0.2172	0.1622	0.1275	0.1080	0.0972	0.0894	0.0825	0.0746	0.0644	0.0493	0.0276
50	0.2041	0.1493	0.1151	0.0966	0.0864	0.0787	0.0715	0.0637	0.0543	0.0414	0.0234
55	0.1946	0.1429	0.1091	0.0895	0.0778	0.0688	0.0605	0.0526	0.0445	0.0353	0.0240
60	0.1873	0.1412	0.1079	0.0855	0.0701	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Note: No probability of withdrawal is applied to members eligible to retire.

#### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates is used, with the female rates set back one year. A separate table of mortality rates is used for disabled retirees. The following are sample rates:

	Hea	lthy	Disabled			
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>		
50	0.28%	0.14%	3.06%	2.31%		
55	0.48%	0.22%	3.86%	2.66%		
60	0.86%	0.42%	4.82%	2.98%		
65	1.56%	0.82%	5.42%	3.33%		
70	2.55%	1.37%	5.91%	3.70%		
75	4.00%	2.19%	6.74%	4.43%		
80	6.67%	3.80%	9.02%	6.71%		
85	10.46%	6.56%	13.45%	10.15%		

#### 5. <u>Marriage Assumption</u>

One hundred percent of all active members are assumed to be married, with female spouses being three years younger.

#### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

#### 7. Cost Methods

#### a. Normal Retirement, Termination, Death and Disability Benefits

The contribution rate is set by statute for employees and by the South Carolina Budget and Control Board for the employers. The funding period is determined, as described below, using the Entry Age Normal actuarial cost method.

The Entry Age Normal actuarial cost method assigns the plan's total unfunded liabilities (the actuarial present value of future benefits less the actuarial value of assets) to various periods. The unfunded actuarial liability is assigned to years prior to the valuation, and the normal cost is assigned to the year following the valuation. The remaining costs are the normal costs for future years. Then each year's contribution is composed of (i) that year's normal cost, plus (ii) a payment used to reduce the unfunded actuarial liability.

The normal cost is the level (as a percentage of pay) contribution required to fund the benefits for all current members. Part of the normal cost is paid from the employees' own contributions. The employers pay the balance from their contributions. The method used for this valuation sets the present value of future normal costs that are to be paid by the employees as 6.25 percent of the value of the current year's earnings plus 6.50 percent of their present value of future earnings after June 30, 2006.

The actuarial liability is the difference between the total present value of future benefits and the actuarial present value of future normal costs. The unfunded actuarial liability is the excess of the actuarial liability over the actuarial value of assets.

The balance of the employers' contributions – the remainder after paying their share of the normal cost – is used to reduce the unfunded actuarial liability. The calculation of the amortization period takes into account increases to contribution rates applicable to future years, payroll growth, and the results are rounded to the nearest year. Also, the calculation of the amortization period reflects

additional contributions the System receives with respect to TERI participants, ORP participants, and return-to-work retirees. These contributions are assumed to grow at the same payroll growth rate as for active SCRS employees.

It is assumed that amortization payments are made monthly at the end of the month.

#### b. Group Life Insurance Benefit

One-year term cost method.

#### 8. Unused Annual Leave

To account for the effect of unused annual leave on Average Final Compensation, liabilities for active members are increased 2.14 percent.

#### 9. Unused Sick Leave

To account for the effect of unused sick leave on members' final credited service, the service of active members who retire is increased three months.

#### 10. Future Cost-of-Living Increases

Benefits are assumed to increase 1 percent annually beginning on the July 1st next following receipt of 12 monthly payments.

#### 11. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

#### 12. Payroll Growth Rate

4.00 percent per annum.

#### 13. Changes from Prior Valuation

- a. The rate of election for TERI was reduced from 80 percent to 40 percent of first eligible members prior to age 60 and from 80 percent to 60 percent of first eligible members at ages 60 to 65.
- b. The rate of retirement assumption uses an additional rate reflecting the higher election of members in their first year of eligiblity for unreduced retirement benefits prior to age 65. The additional first eligiblity rate in the prior valuation was 40 percent for male and female teachers and 30 percent for male general employees and 45 percent for female general employees. The first eligiblity rate was adjusted to 30 percent for all categories prior to age 65.

#### 14. Adoption Date

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on April 20, 2004. The rate of election for TERI and retirement rates were approved by the Board on May 16, 2006.

# **South Carolina Retirement System** Development of Actuarial Value of Assets (Amounts expressed in thousands)

		Item				
1.	Excess (Shortfall) of Investmand Previous Three Years:	nent Income for Current Year				
	a. Current Year		\$	(435,359)		
	b. Current Year - 1			(14,499)		
	c. Current Year - 2			330,912		
	d. Current Year - 3		\$	319,064		
2.	Deferral of Excess (Shortfal a. Current Year b. Current Year - 1 c. Current Year - 2 d. Current Year - 3 e. Total Deferred for Year	l) of Investment Income for: (80% Deferral) (60% Deferral) (40% Deferral) (20% Deferral)	\$	(348,287) (8,699) 132,365 63,813 (160,808)		
3.	Market Value of Plan Asset	s, End of Year	\$	22,132,638		
4.	Preliminary Actuarial Value (Item 3 - Item 2.e.)	of Plan Assets, End of Year	\$	22,293,446		
5.	Actuarial Value of Assets Co	orrider				
	a. 80% of Market Value of	of Assets, End of Year	\$	17,706,110		
	b. 120% of Market Value		\$	26,559,166		
6.		n Assets, End of Year (Item 4., , or Greater Than Item 5.b.)	\$	22,293,446		

# **Police Officers Retirement System Summary of Actuarial Assumptions and Methods**

#### 1. <u>Investment Return to be Earned by Fund</u>

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

#### 2. <u>Salary Increases</u>

Salary increases are assumed in accordance with the following representative rates:

Years of Service	Annual <u>Increase</u>	Years of <u>Service</u>	Annual Increase
0	11.50%	8	4.75%
1	6.75%	9	4.75%
2	5.75%	10	4.75%
3	5.50%	11	4.75%
4	5.25%	12	4.50%
5	5.00%	13	4.50%
6	4.75%	14	4.50%
7	4.75%	15+	4.50%

#### 3. Decrement Rates

The following are representative values of the assumed annual rates of withdrawal, inservice mortality, disability, and service retirement.

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Age	Service Retirement*	Mortality	Disability
20		0.03%	0.12%
25		0.03%	0.14%
30		0.04%	0.18%
35		0.07%	0.35%
40		0.10%	0.46%
45	20.00%	0.14%	0.69%
50	20.00%	0.19%	0.86%
55	14.00%	0.27%	
60	15.00%	0.44%	
64	25.00%	0.63%	

<sup>\*</sup>Plus an additional 22 percent for participants under age 55 in year when first eligible for unreduced service retirement.

All employees are assumed to retire at age 65. In addition, 25 percent of disabilities are assumed to be duty-related, and 5 percent of pre-retirement deaths are assumed to be accidental (duty-related).

#### **Probability of Decrement Due to Withdrawal**

Years of Service											
Age	0	1	2	3	4	5	6	7	8	9	10+
25	0.2494	0.1816	0.1342	0.1047	0.0885	0.0780	0.0715	0.0640	0.0545	0.0524	0.0618
30	0.2478	0.1822	0.1376	0.1107	0.0959	0.0876	0.0810	0.0732	0.0633	0.0545	0.0481
35	0.2450	0.1795	0.1359	0.1104	0.0967	0.0899	0.0837	0.0763	0.0665	0.0539	0.0381
40	0.2398	0.1739	0.1304	0.1055	0.0927	0.0868	0.0814	0.0747	0.0653	0.0510	0.0305
45	0.2312	0.1649	0.1212	0.0964	0.0845	0.0783	0.0738	0.0681	0.0595	0.0458	0.0256
50	0.2193	0.1532	0.1090	0.0839	0.0730	0.0646	0.0610	0.0564	0.0490	0.0382	0.0236
55	0.2050	0.1393	0.0944	0.0684	0.0587						
60	0.1871	0.1228	0.0773	0.0503	0.0419						

Note: No probability of withdrawal is applied to members eligible to retire.

#### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates is used, with female rates set back one year and male rates set forward three years. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the retirees and beneficiaries:

	Hea	lthy	Disabled
Age	Male	Female	All
50	0.39%	0.14%	2.30%
55	0.68%	0.22%	2.89%
60	1.23%	0.42%	3.62%
65	2.14%	0.82%	4.07%
70	3.35%	1.37%	4.43%
75	5.40%	2.19%	5.05%
80	8.87%	3.80%	6.77%
85	13.65%	6.56%	10.09%

#### 5. <u>Marriage Assumption</u>

One hundred percent of all active members are assumed to be married, with female spouses being four years younger.

#### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

#### 7. Cost Methods

#### a. Normal Retirement, Termination, Death and Disability Benefits

Projected benefit method with level percentage entry age normal cost. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial liability. The resulting amortization period is based upon payments level as a percentage of payroll and the results are rounded to the nearest year. We completed a separate valuation of the accidental (duty-related) death benefit.

#### b. Group Life Insurance Benefit and Accidental Death Benefits

One-year term cost method.

#### 8. Unused Annual Leave

To account for the effect of unused annual leave on Average Final Compensation, liabilities for active members are increased 3.75 percent.

#### 9. Unused Sick Leave

To account for the effect of unused sick leave on members' final credited service, the service of active members who retire is increased three months.

#### 10. <u>Future Cost-of-Living Increases</u>

None assumed.

#### 11. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

#### 12. Payroll Growth Rate

4.00 percent per annum.

#### 13. <u>Changes from Prior Valuation</u>

None.

#### 14. Adoption Date

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on April 20, 2004.

# **Police Officers Retirement System** Development of Actuarial Value of Assets (Amounts expressed in thousands)

		Va	luation as of
	Item		uly 1, 2006
1.	Excess (Shortfall) of Investment Income for Current Year and Previous Three Years: a. Current Year b. Current Year - 1 c. Current Year - 2 d. Current Year - 3	\$	(65,188) (18,170) 31,828 57,490
2.	Deferral of Excess (Shortfall) of Investment Income for: a. Current Year (80% Deferral) b. Current Year - 1 (60% Deferral) c. Current Year - 2 (40% Deferral) d. Current Year - 3 (20% Deferral) e. Total Deferred for Year	\$	(52,150) (10,902) 12,731 11,498 (38,823)
3.	Market Value of Plan Assets, End of Year	\$	2,897,018
4.	Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$	2,935,841
5.	Actuarial Value of Assets Corrider a. 80% of Market Value of Assets, End of Year b. 120% of Market Value of Assets, End of Year	\$ \$	2,317,614 3,476,422
6.	Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$	2,935,841

# **General Assembly Retirement System Summary of Actuarial Assumptions and Methods**

#### 1. <u>Investment Return to be Earned by Fund</u>

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

#### 2. <u>Salary Increases</u>

None assumed.

#### 3. Decrement Rates

The following are representative values of the assumed annual rates of in-service mortality, disability, and service retirement. No withdrawals are assumed. All members who are not re-elected are assumed to continue paying the member rate as a special contributor.

#### a. Unreduced Service Retirement

<u>Age</u>	Rates of Retirement
60 & under	40%
61	7%
62	7%
63	7%
64	7%
65	15%
66	15%
67	15%
68	15%
69	15%
70 & older	100%

In addition, members with 30 years of service are assumed to commence benefit payments immediately even if they do not terminate employment.

#### b. <u>In-service Mortality and Disability</u>

Annua	l Rates	of

	Mortality		Disability			
	Empl	<u>oyees</u>	<u>Empl</u>	<u>oyees</u>		
<u>Age</u>	<u>Male</u>	Male <u>Female</u>		<u>Female</u>		
25	0.04%	0.01%	0.06%	0.05%		
30	0.04%	0.02%	0.12%	0.07%		
35	0.08%	0.03%	0.17%	0.15%		
40	0.11%	0.05%	0.29%	0.19%		
45	0.15%	0.07%	0.40%	0.27%		
50	0.21%	0.11%	0.58%	0.46%		
55	0.30%	0.16%	0.92%	0.74%		
60	0.49%	0.26%	1.15%	1.12%		
64	0.70%	0.35%	1.44%	1.56%		

#### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the UP-94 Mortality Table rates, with the female rates set back one year. A separate table of mortality rates is used for disabled retirees. The following are sample rates:

	Hea	lthy	Disabled		
Age	Male	Female	Male	Female	
50	0.28%	0.14%	3.06%	2.31%	
55	0.48%	0.22%	3.86%	2.66%	
60	0.86%	0.42%	4.82%	2.98%	
65	1.56%	0.82%	5.42%	3.33%	
70	2.55%	1.37%	5.91%	3.70%	
75	4.00%	2.19%	6.74%	4.43%	
80	6.67%	3.80%	9.02%	6.71%	
85	10.46%	6.56%	13.45%	10.15%	

#### 5. Marriage Assumption

One hundred percent of all active and special contributor members are assumed to be married, with female spouses being four years younger.

#### 6. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

#### 7. Cost Method

Projected benefit method with level percentage entry age normal cost and a closed, level-dollar amortization of the unfunded actuarial accrued liability.

#### 8. Future Cost-of-Living Increases

None assumed.

#### 9. Payroll Growth Rate

None assumed.

#### 10. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

#### 11. <u>Changes from Prior Valuation</u>

None.

#### 12. Adoption Date

The current actuarial assumptions and methods were adopted by the State Budget and Control Board on May 4, 2004.

# General Assembly Retirement System Development of Actuarial Value of Assets (Amounts expressed in thousands)

		Item		y 1, 2006
1.	Excess (Shortfall) of Investand Previous Three Years a. Current Year b. Current Year - 1 c. Current Year - 2 d. Current Year - 3	tment Income for Current Year ::	\$	(1,220) (9) 927 1,068
2.	Deferral of Excess (Shorts a. Current Year b. Current Year - 1 c. Current Year - 2 d. Current Year - 3 e. Total Deferred for Year	fall) of Investment Income for: (80% Deferral) (60% Deferral) (40% Deferral) (20% Deferral)	\$	(976) (5) 371 214 (396)
3.	Market Value of Plan Ass	ets, End of Year	\$	45,679
4.	Preliminary Actuarial Val (Item 3 - Item 2.e.)	ue of Plan Assets, End of Year	\$	46,075
5.		Corrider e of Assets, End of Year ue of Assets, End of Year	\$ \$	36,543 54,815
6.		lan Assets, End of Year (Item 4., 5.a., or Greater Than Item 5.b.)	\$	46,075

### Judges and Solicitors Retirement System Summary of Actuarial Assumptions and Methods

#### 1. <u>Investment Return to be Earned by Fund</u>

7.25 percent per annum, compounded annually, composed of an assumed 3.00 percent inflation rate and a 4.25 percent real rate of return, net of investment and administrative expenses.

#### 2. Salary Increases

45

50

55

60

64

3.25 percent per annum, compounded annually.

#### 3. <u>Disability and Pre-retirement Mortality Rates</u>

The following are representative values of the assumed annual rates of disability and pre-retirement death.

	Mor	tality	Disa	bility
	<u>Empl</u>	oyees	<u>Empl</u>	<u>oyees</u>
<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
25	0.06%	0.03%	0.04%	0.05%
30	0.07%	0.04%	0.06%	0.07%
35	0.07%	0.04%	0.08%	0.07%
40	0.10%	0.05%	0.15%	0.12%

0.08%

0.13%

0.21%

0.33%

0.54%

**Annual Rates of** 

0.25%

0.40%

0.65%

1.00%

1.25%

0.25%

0.40%

0.65%

1.00%

1.25%

No in-service withdrawals are assumed.

0.18%

0.30%

0.46%

0.65%

0.99%

#### 4. Mortality After Retirement

For healthy retirees and beneficiaries, the 1983 Group Annuity Mortality Table rates. A separate table of mortality rates is used for disabled retirees. The following are sample rates for the healthy retirees and beneficiaries:

Age	Male	Female
60	0.92%	0.42%
65	1.56%	0.71%
70	2.75%	1.24%
75	4.46%	2.40%
80	7.41%	4.29%
85	11.48%	6.99%

#### 5. Normal Retirement Assumption

Upon meeting the retirement eligibility requirement, participants are assumed to retire in the following manner:

**Normal Retirement Assumption** 

Age	Solicitors Service	% Retiring	Age	Judges Service	% Retiring
70 to 72	15 to 19	12	70 to 72	15 to 19	12
65 to 69	20 to 23	40	65 to 69	20 to 24	40
Any	24	40	Any	25	25
Any	25	25	Any	26	15
Any	26	12	Any	27	15
Any	27	12	Any	28	15
Any	28	12	Any	29	15
Any	29	12	Any	30	15
Any	30	12	Any	31	15
Any	31	35	Any	32	35
Any	32 and over	12	Any	33 and over	15

Additionally, 100 percent of participants are assumed to retire upon reaching the mandatory retirement age of 72.

#### 6. <u>Marriage Assumption</u>

Ninety-five percent of all active members are assumed to be married with female spouses being three years younger.

#### 7. Asset Valuation Method

The actuarial value of assets is equal to the market value of assets less a five-year phase in of the excess (shortfall) between expected investment return and actual net income (both based on market value) with the resulting value not being less than 80 percent or more than 120 percent of the market value of assets.

#### 8. <u>Cost Methods</u>

Projected benefit method with level percentage entry age normal cost. Gains and losses are reflected in the period remaining to liquidate the unfunded actuarial accrued liability. The calculation of the amortization period takes into account future increases to contribution rates applicable to future years, payroll growth and the results are rounded to the nearest year.

#### 9. Future Cost-of-Living Increases

3.25 percent per annum.

#### 10. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

#### 11. Payroll Growth Rate

3.25 percent per annum.

#### 12. Changes from Prior Valuation

None.

#### 13. Adoption Date

The current actuarial assumptions, except for the retirement rate assumption, were adopted by the State Budget and Control Board on April 20, 2004. The retirement rates were approved by the Board on May 16, 2006.

## **Judges and Solicitors Retirement System**

### **Development of Actuarial Value of Assets**

(Amounts expressed in thousands)

	Item		ly 1, 2006
1.	Excess (Shortfall) of Investment Income for Current Year and Previous Three Years: a. Current Year b. Current Year - 1 c. Current Year - 2 d. Current Year - 3	\$	(2,921) (31) 1,619 1,878
2.	Deferral of Excess (Shortfall) of Investment Income for: a. Current Year (80% Deferral) b. Current Year - 1 (60% Deferral) c. Current Year - 2 (40% Deferral) d. Current Year - 3 (20% Deferral) e. Total Deferred for Year	\$	(2,337) (19) 648 376 (1,332)
3.	Market Value of Plan Assets, End of Year	\$	123,505
4.	Preliminary Actuarial Value of Plan Assets, End of Year (Item 3 - Item 2.e.)	\$	124,837
5.	Actuarial Value of Assets Corrider a. 80% of Market Value of Assets, End of Year b. 120% of Market Value of Assets, End of Year	\$ \$	98,804 148,206
6.	Final Actuarial Value of Plan Assets, End of Year (Item 4., But Not Less Than Item 5.a., or Greater Than Item 5.b.)	\$	124,837

# South Carolina Retirement System Schedule of Active Member Valuation Data\* As of July 1, 2006

Valuation Date	Number of Employers	Number of Active Members	(in	Annual Payroll thousands)	Annual erage Pay	Percentage Increase In Average Pay
7-01-06	763	184,282	\$	6,733,379	\$ 36,538	4.06%
7-01-05	768	181,022		6,356,489	35,114	3.30%
7-01-04	763	181,827		6,180,599	33,992	1.06%
7-01-03	763	185,538		6,240,768	33,636	3.50%
7-01-02	746	189,166		6,147,712	32,499	3.42%
7-01-01	739	191,494		6,017,537	31,424	5.15%
7-01-00	729	196,825		5,881,847	29,884	5.49%
7-01-99	726	193,213		5,473,759	28,330	3.83%
7-01-98	720	190,259		5,191,048	27,284	2.78%
7-01-97	725	185,597		4,927,124	26,547	4.40%

<sup>\*</sup>Does not include Teacher and Employee Retention Incentive (TERI) participants.

### Police Officers Retirement System Schedule of Active Member Valuation Data As of July 1, 2006

Number of Employers	Number of Active Members	Annual Payroll (in thousands)		Annual Average Pay		Percentage Increase In Average Pay
314	24,813	\$	931,815	\$	37,554	5.05%
314	23,795		850,610		35,747	3.16%
314	23,734		822,448		34,653	3.35%
314	23,871		800,394		33,530	6.08%
302	23,963		757,393		31,607	3.59%
296	24,821		757,335		30,512	5.50%
297	24,782		716,749		28,922	4.82%
307	23,127		638,086		27,591	4.11%
301	22,883		606,426		26,501	2.83%
297	21,829		562,553		25,771	4.31%
	314 314 314 314 302 296 297 307 301	Number of Employersof Active Members31424,81331423,79531423,73431423,87130223,96329624,82129724,78230723,12730122,883	Number of Employers         of Active Members         (in the second seco	Number of Employersof Active MembersPayroll (in thousands)31424,813\$ 931,81531423,795850,61031423,734822,44831423,871800,39430223,963757,39329624,821757,33529724,782716,74930723,127638,08630122,883606,426	Number of Employers         of Active Members         Payroll (in thousands)         Average	Number of Employersof Active MembersPayroll (in thousands)Annual Average Pay31424,813\$ 931,815\$ 37,55431423,795850,61035,74731423,734822,44834,65331423,871800,39433,53030223,963757,39331,60729624,821757,33530,51229724,782716,74928,92230723,127638,08627,59130122,883606,42626,501

# General Assembly Retirement System Schedule of Active Member Valuation Data\* As of July 1, 2006

Valuation Date	Number of Employers	Number of Active Members*	Annual Payroll (in thousands)		of Active Payroll Annual			Percentage Increase In Average Pay
7-01-06	2	170	\$	3,854	\$	22,671	0.00%	
7-01-05	2	170		3,853		22,668	0.38%	
7-01-04	2	170		3,839		22,582	(0.13%)	
7-01-03	2	170		3,844		22,612	0.17%	
7-01-02	2	200		4,515		22,573	(0.91%)	
7-01-01	2	209		4,761		22,781	(0.12%)	
7-01-00	2	213		4,858		22,808	0.31%	
7-01-99	2	219		4,979		22,737	(0.26%)	
7-01-98	2	211		4,810		22,797	0.00%	
7-01-97	2	207		4,721		22,800	1.79%	

<sup>\*</sup>Beginning July 1, 2003, does not include special contributors.

### Judges and Solicitors Retirement System Schedule of Active Member Valuation Data As of July 1, 2006

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)		of Active Payroll Annual			Percentage Increase In Average Pay
7-01-06	2	128	\$	15,929	\$	124,445	3.00%	
7-01-05	2	128		15,465		120,820	4.00%	
7-01-04	2	128		14,870		116,172	3.00%	
7-01-03	2	128		14,437		112,789	1.59%	
7-01-02	2	128		14,211		111,026	0.73%	
7-01-01	2	128		14,109		110,223	4.26%	
7-01-00	2	125		13,214		105,715	4.49%	
7-01-99	2	126		12,748		101,174	4.99%	
7-01-98	2	120		11,564		96,363	3.05%	
7-01-97	2	120		11,221		93,508	6.38%	

# South Carolina Retirement System The Number and Earnable Compensation of Active Members

As of July 1, 2006

(Dollar amounts expressed in thousands)

GROUP	NUMBER	CO	ANNUAL MPENSATION
State Employees	53,360	\$	2,135,447
Teachers	81,578		2,918,377
Other	49,344		1,679,555
Total	184,282	\$	6,733,379

Note: In addition, there are 151,510 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

# Police Officers Retirement System The Number and Earnable Compensation of Active Members

As of July 1, 2006

(Dollar amounts expressed in thousands)

	ANNUAL				
<b>NUMBER</b>	COMPENSATION				
24,813	\$	931,815			

Note: In addition, there are 10,464 inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account.

# General Assembly Retirement System The Number and Earnable Compensation of Active Members

As of July 1, 2006 (Dollar amounts expressed in thousands)

	ANNUAL				
NUMBER	COM	PENSATION			
170	\$	3.854			

Note: There are 63 inactive members with contributions still in the system, and there are 27 special contributors. The results of the valuation were adjusted to take these members into account. Numbers shown above do not include open seats or members receiving retirement benefits while continuing in office.

# **Judges and Solicitors Retirement System The Number and Earnable Compensation of Active Members**

As of July 1, 2006

(Dollar amounts expressed in thousands)

	F	ANNUAL	
NUMBER	COMPENSATION		
128	\$	15,929	

Note: There are five inactive members with contributions still in the system. The results of the valuation were adjusted to take these members into account. Numbers above were not adjusted for open seats.

# **South Carolina Retirement System** The Number and Annual Retirement Allowances of **Retired Members and Beneficiaries\***

As of July 1, 2006 (Dollar amounts expressed in thousands)

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES	
Service Retirements:			
Employees:			
Men	18,903	\$	418,565
Women	21,435		330,436
Total	40,338		749,001
Teachers:			
Men	7,666		184,819
Women	31,610		573,258
Total	39,276		758,077
<b>Disability Retirements:</b>			
Employees:			
Men	2,914		35,655
Women	3,461		38,682
Total	6,375		74,337
Teachers:			
Men	836		11,362
Women	3,404		41,376
Total	4,240		52,738
<b>Beneficiaries:</b>			
Men	1,905		13,477
Women	5,071		56,959
Total	6,976		70,436
Grand Total	97,205	\$	1,704,589

<sup>\*</sup>Includes Teacher and Employee Retention Incentive (TERI) participants.

## **Police Officers Retirement System** The Number and Annual Retirement Allowances of **Retired Members and Beneficiaries**

As of July 1, 2006

(Dollar amounts expressed in thousands)

GROUP	NUMBER		ANNUAL RETIREMENT ALLOWANCES	
Service Retirements:				
Men	6,451	\$	123,512	
Women	1,170		14,387	
Total	7,621		137,899	
<b>Disability Retirements:</b>				
Men	1,176		21,775	
Women	343		4,604	
Total	1,519		26,379	
<b>Beneficiaries:</b>				
Men	34		271	
Women	960		10,396	
Total	994		10,667	
Grand Total	10,134	\$	174,945	

### **General Assembly Retirement System** The Number and Annual Retirement Allowances of **Retired Members and Beneficiaries**

As of July 1, 2006 (Dollar amounts expressed in thousands)

GROUP	NUMBER	ANNUAL RETIREMENT ALLOWANCES	
Service Retirements:			
Men	218	\$	4,166
Women	25		474
Total	243		4,640
<b>Disability Retirements:</b>			
Men	1		16
Women	0		0
Total	1		16
Beneficiaries:			
Men	0		0
Women	73		1,119
Total	73		1,119
Grand Total	317	\$	5,775

# Judges and Solicitors Retirement System The Number and Annual Retirement Allowances of Retired Members and Beneficiaries

As of July 1, 2006

(Dollar amounts expressed in thousands)

GROUP	NUMBER	RETI	NNUAL IREMENT DWANCES
Service Retirements:  Men  Women	98	\$	8,574 87
Total	99		8,661
Disability Retirements:  Men  Women  Total	1 0 1		89 0 89
<b>Beneficiaries:</b> Men Women	10		233 1,068
Total	44		1,301
Grand Total	144	\$	10,051

# South Carolina Retirement System Schedule of Retirants Added to and Removed from Rolls\* (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added Number	to Rolls Annual Allowances	Removed Number	Annual Allowances	Rolls End	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
7-01-06	4,621	\$ 118,271	2,083	\$ 24,099	97,205	\$ 1,704,589	5.8%	\$ 17,536
7-01-05	7,203	167,748	2,143	23,537	94,667	1,610,417	9.8%	17,011
7-01-04	7,319	151,477	2,132	22,656	89,607	1,466,206	9.6%	16,363
7-01-03	7,866	163,867	2,510	27,662	84,420	1,337,385	11.3%	15,842
7-01-02	7,344	140,077	2,334	24,531	79,064	1,201,180	10.6%	15,193
7-01-01	12,523	284,739	2,474	23,735	74,054	1,085,634	31.7%	14,660
7-01-00	4,772	93,459	1,830	17,139	64,005	824,630	10.2%	12,884
7-01-99	4,961	68,522	2,436	12,175	61,063	748,310	8.1%	12,255
7-01-98	4,580	61,751	2,169	13,592	58,538	691,963	7.5%	11,321
7-01-97	4,601	78,201	2,346	10,928	56,127	643,804	11.7%	11,470

<sup>\*</sup>Includes Teacher and Employee Retention Incentive (TERI) participants.

# Police Officers Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added Number	to Rolls Annual Allowances	Removed Number	from Rolls Annual Allowances	Rolls End	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
7-01-06	678	\$ 16,880	205	\$ 2,691	10,134	\$ 174,945	8.8%	\$ 17,263
7-01-05	778	12,576	173	2,147	9,661	160,756	9.8%	16,640
7-01-04	894	16,256	265	2,923	9,056	146,348	10.8%	16,114
7-01-03	947	18,614	226	2,733	8,427	133,015	13.6%	15,784
7-01-02	956	17,378	220	2,639	7,706	117,134	14.4%	15,200
7-01-01	989	17,235	341	3,986	6,970	102,395	14.9%	14,691
7-01-00	549	9,979	152	1,581	6,322	89,146	10.4%	14,101
7-01-99	606	8,490	238	1,731	5,925	80,748	9.1%	13,628
7-01-98	492	6,924	154	1,085	5,557	73,989	8.6%	13,315
7-01-97	533	9,024	176	759	5,219	68,150	13.8%	13,058

# General Assembly Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year Ended	Added	Annual Allowances				Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances	
Lilucu	- Tunnser	Movumees	- Turnser	Miowanees	Tullibei	7 thowarees	7 movanees	7 thowances	
7-01-06	13	\$ 238	8	\$ 179	317	\$ 5,775	1.0%	\$ 18,218	
7-01-05	22	486	7	125	312	5,716	6.8%	18,321	
7-01-04	12	185	9	119	297	5,353	1.2%	18,023	
7-01-03	40	839	12	226	294	5,287	13.1%	17,983	
7-01-02	24	453	9	160	266	4,674	6.7%	17,571	
7-01-01	27	609	11	204	251	4,381	10.2%	17,454	
7-01-00	8	118	7	110	235	3,976	0.2%	16,919	
7-01-99	16	257	6	62	234	3,968	5.2%	16,957	
7-01-98	9	125	6	159	224	3,773	(0.9%)	16,844	
7-01-97	18	233	4	92	221	3,807	3.8%	17,226	

# Judges and Solicitors Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year	Added	d to Rolls Annual	Removed	d from Rolls Annual	Rolls End	of the Year Annual	% Increase in Annual	Average Annual	
<b>Ended</b>	Number	<b>Allowances</b>	Number	Allowances	Number	Allowances	Allowances	Allowances	
7-01-06	4	\$ 464	1	\$ 28	144	\$ 10,051	4.5%	\$ 69,799	
7-01-05	3	581	1	27	141	9,615	6.1%	68,191	
7-01-04	11	925	2	139	139	9,061	9.5%	65,190	
7-01-03	11	716	7	493	130	8,275	2.8%	63,654	
7-01-02	13	706	5	248	126	8,052	6.0%	63,905	
7-01-01	9	685	6	442	118	7,594	3.3%	64,356	
7-01-00	7	772	4	276	115	7,351	7.2%	63,926	
7-01-99	9	598	3	209	112	6,855	6.0%	61,205	
7-01-98	8	812	3	198	106	6,466	10.5%	60,996	
7-01-97	4	746	4	187	101	5,852	10.6%	57,941	

## Summary of Accrued and Unfunded Accrued Liabilites (Dollar amounts expressed in thousands)

	Valuation Date	Valuation Assets	Actuarial Liability	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
SCRS	7-01-06	\$ 22,293,446	\$ 32,018,519	69.6%	\$ 9,725,073	\$ 6,733,379	144.4%
	7-01-05	21,625,510	30,217,471	71.6%	8,591,961	6,356,489	135.2%
	7-01-04	20,862,659	25,977,852	80.3%	5,115,193	6,180,599	82.8%
	7-01-03	20,197,936	24,398,931	82.8%	4,200,995	6,240,768	67.3%
	7-01-02	19,298,174	22,446,574	86.0%	3,148,400	6,147,712	51.2%
	7-01-01	18,486,773	21,162,147	87.4%	2,675,374	6,017,537	44.5%
	7-01-00	17,286,108	19,414,972	89.0%	2,128,864	5,881,847	36.2%
	7-01-99	16,120,513	16,298,438	98.9%	177,925	5,473,759	3.3%
	7-01-98	14,946,070	15,952,345	93.7%	1,006,275	5,191,048	19.4%
	7-01-97	13,621,362	14,977,179	90.9%	1,355,817	4,927,124	27.5%
	Valuation	Valuation	Actuarial	Actuarial Assets as a % of Actuarial Accrued	Unfunded Accrued	Annual Active Member	UAL as a % of Active Member
PORS	Valuation Date	Valuation Assets	Actuarial Liability	Assets as a % of Actuarial			of Active
PORS			<b>Liability</b>	Assets as a % of Actuarial Accrued	Accrued Liabilities	Active Member Payroll	of Active Member
PORS	Date	Assets	<b>Liability</b>	Assets as a % of Actuarial Accrued Liabilities	Accrued Liabilities	Active Member Payroll	of Active Member Payroll
PORS	<b>Date</b> 7-01-06	<b>Assets</b> \$ 2,935,841	Liability  \$ 3,466,281	Assets as a % of Actuarial Accrued Liabilities 84.7%	Accrued Liabilities  \$ 530,440	Active Member Payroll \$ 931,815 850,610	of Active Member Payroll 56.9%
PORS	7-01-06 7-01-05	* 2,935,841 2,774,606	Liability  \$ 3,466,281     3,173,930	Assets as a % of Actuarial Accrued Liabilities 84.7% 87.4%	Accrued Liabilities \$ 530,440 399,324	Active Member Payroll  \$ 931,815 850,610 822,448	of Active Member Payroll 56.9% 46.9%
PORS	7-01-06 7-01-05 7-01-04	Assets  \$ 2,935,841 2,774,606 2,616,835	\$ 3,466,281 3,173,930 2,984,584	Assets as a % of Actuarial Accrued Liabilities 84.7% 87.4% 87.7%	Accrued Liabilities \$ 530,440 399,324 367,749	Active Member Payroll  \$ 931,815 850,610 822,448	of Active Member Payroll 56.9% 46.9% 44.7%
PORS	7-01-06 7-01-05 7-01-04 7-01-03	\$ 2,935,841 2,774,606 2,616,835 2,511,369	\$ 3,466,281 3,173,930 2,984,584 2,744,849	Assets as a % of Actuarial Accrued Liabilities  84.7% 87.4% 87.7% 91.5%	Accrued Liabilities \$ 530,440 399,324 367,749 233,480	* 931,815 850,610 822,448 800,394	of Active Member Payroll 56.9% 46.9% 44.7% 29.2%
PORS	7-01-06 7-01-05 7-01-04 7-01-03 7-01-02	\$ 2,935,841 2,774,606 2,616,835 2,511,369 2,351,100	\$ 3,466,281 3,173,930 2,984,584 2,744,849 2,527,876	Assets as a % of Actuarial Accrued Liabilities  84.7% 87.4% 87.7% 91.5% 93.0%	Accrued Liabilities \$ 530,440 399,324 367,749 233,480 176,776	**Sective Member Payroll**  \$ 931,815 850,610 822,448 800,394 757,393	of Active Member Payroll  56.9% 46.9% 44.7% 29.2% 23.3%
PORS	7-01-06 7-01-05 7-01-04 7-01-03 7-01-02 7-01-01	\$ 2,935,841 2,774,606 2,616,835 2,511,369 2,351,100 2,197,982	\$ 3,466,281 3,173,930 2,984,584 2,744,849 2,527,876 2,324,257	Assets as a % of Actuarial Accrued Liabilities  84.7% 87.4% 87.7% 91.5% 93.0% 94.6%	Accrued Liabilities \$ 530,440 399,324 367,749 233,480 176,776 126,275	\$ 931,815 850,610 822,448 800,394 757,393 757,335 716,749	of Active Member Payroll  56.9% 46.9% 44.7% 29.2% 23.3% 16.7%
PORS	7-01-06 7-01-05 7-01-04 7-01-03 7-01-02 7-01-01 7-01-00	\$ 2,935,841 2,774,606 2,616,835 2,511,369 2,351,100 2,197,982 2,008,554	\$ 3,466,281 3,173,930 2,984,584 2,744,849 2,527,876 2,324,257 2,095,991	Assets as a % of Actuarial Accrued Liabilities  84.7% 87.4% 87.7% 91.5% 93.0% 94.6% 95.8%	**S30,440** \$ 530,440** 399,324** 367,749** 233,480** 176,776** 126,275** 87,437**	\$ 931,815 850,610 822,448 800,394 757,393 757,335 716,749	of Active Member Payroll  56.9% 46.9% 44.7% 29.2% 23.3% 16.7% 12.2%

Note: Effective 7-1-1999, actuarial assumptions were changed as a result of a 5 year experience study.

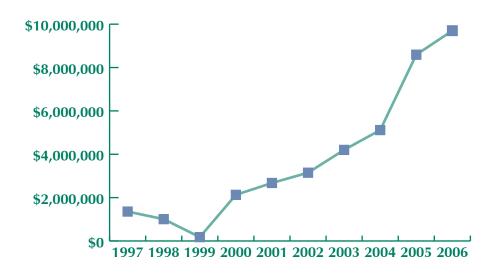
Effective for the 7-1-2000 valuation, eligibility for an unreduced retirement annuity under SCRS was reduced from 30 years of service to 28 years. The SCRS also adopted a deferred retirement option plan.

Effective 7-1-2003, actuarial assumptions were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, disability incidence assumptions and withdrawal rate assumptions were revised for both SCRS and PORS. In addition, the assumed mortality rates for retired SCRS members were revised, along with the assumed mortality rates of active and disabled members for PORS.

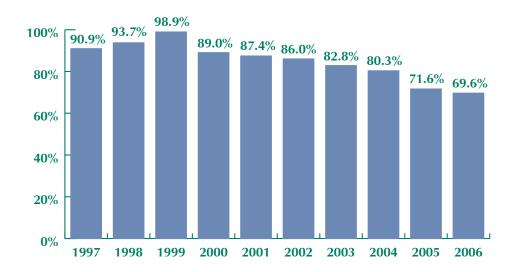
Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005 contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

# **South Carolina Retirement System Funding Progress with Funded Ratios**

**Unfunded Accrued Liabilities** (Amounts expressed in thousands)

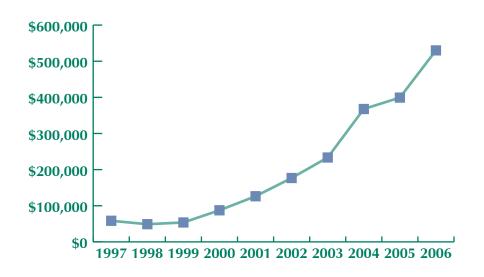


Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)

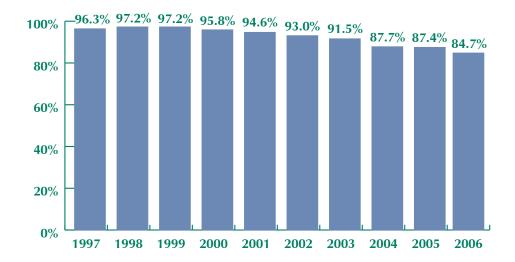


### **Police Officers Retirement System Funding Progress with Funded Ratios**

**Unfunded Accrued Liabilities** (Amounts expressed in thousands)



Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)



## Summary of Accrued and Unfunded Accrued Liabilites (Dollar amounts expressed in thousands)

GARS	Valuation Date	 aluation Assets	 ctuarial ability	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities		Annual Active Member Payroll		UAL as a % of Active Member Payroll
	7-01-06	\$ 46,075	\$ 69,734	66.1%	\$	23,659	\$	3,854	613.9%
	7-01-05	46,316	69,161	67.0%		22,845		3,853	592.9%
	7-01-04	45,087	68,332	66.0%		23,245		3,839	605.5%
	7-01-03	44,682	66,619	67.1%		21,937		3,844	570.8%
	7-01-02	43,841	73,046	60.0%		29,205		4,515	646.9%
	7-01-01	42,788	68,291	62.7%		25,503		4,761	535.6%
	7-01-00	40,730	63,947	63.7%		23,217		4,858	477.9%
	7-01-99	38,685	63,501	60.9%		24,816		4,979	498.4%
	7-01-98	36,260	60,330	60.1%		24,070		4,810	500.4%
	7-01-97	33,627	60,052	56.0%		26,425		4,721	559.7%

JSRS	Valuation Date	\	/aluation Assets	ctuarial iability	Actuarial Assets as a % of Actuarial Accrued Liabilities		Unfunded Accrued Liabilities		Annual tive Member Payroll	UAL as a % of Active Member Payroll
	7-01-06	\$	124,837	\$ 211,384	59.1%	\$	86,547	\$	15,929	543.3%
	7-01-05		118,888	204,847	58.0%		85,959		15,465	555.8%
	7-01-04		112,016	185,052	60.5%		73,036		14,870	491.2%
	7-01-03		106,114	166,655	63.7%		60,541		14,437	419.3%
	7-01-02		100,074	166,440	60.1%		66,366		14,211	467.0%
	7-01-01		94,795	159,246	59.5%		64,451		14,109	456.8%
	7-01-00		87,536	144,631	60.5%		57,095		13,214	432.1%
	7-01-99		81,780	134,272	60.9%		52,492		12,748	411.8%
	7-01-98		75,699	124,756	60.7%		49,057		11,564	424.2%
	7-01-97		68,980	112,185	61.5%		43,205		11,221	385.0%

Actuarial

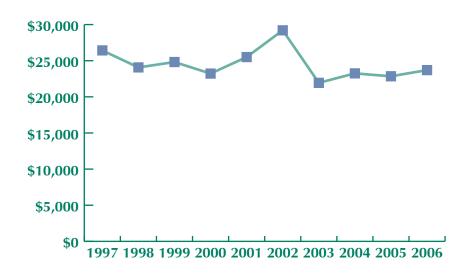
Note: The 7-1-2002, GARS valuation reflected the change in legislation effective January 1, 2003, which allows a member who has attained the age of 70 or has 30 years of service to retire and draw an annuity while continuing to serve in the General Assembly.

Effective 7-1-2003, actuarial assumptions for GARS and JSRS were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, and disability incidence assumptions were revised.

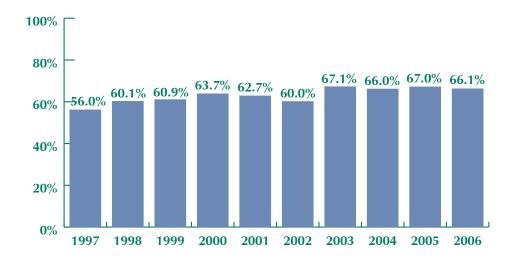
Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.

# **General Assembly Retirement System Funding Progress with Funded Ratios**

**Unfunded Accrued Liabilities** (Amounts expressed in thousands)

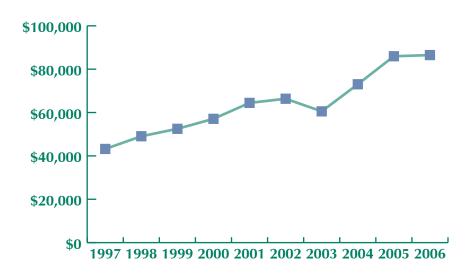


Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)

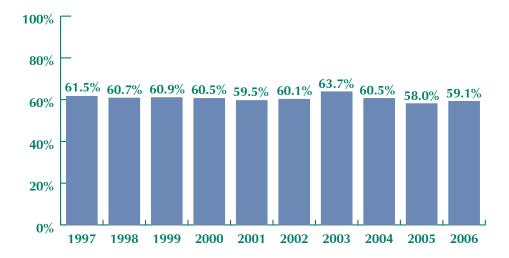


# **Judges and Solicitors Retirement System Funding Progress with Funded Ratios**

**Unfunded Accrued Liabilities** (Amounts expressed in thousands)



Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)



# South Carolina Retirement System Analysis of the Increase in the Unfunded Accrued Liability As of July 1, 2006

(Amounts expressed in millions)

	,	Amount of Increase			
Item:	(De	ecrease)			
Beginning of Year Unfunded Actuarial Liability	\$	8,592			
Interest on Unfunded Actuarial Liability		623			
Amortization Payment		(333)			
Asset Experience		190			
Salary Experience		145			
Other Liability Experience		227			
COLA		457			
Benefit Changes		-			
Assumption/Method Changes		(176)			
Total Increase/(Decrease)	\$	1,133			
End of Year Unfunded Actuarial Liability	\$	9,725			

# Police Officers Retirement System Analysis of the Increase in the Unfunded Accrued Liability

As of July 1, 2006

(Amounts expressed in millions)

	,	Amount of Increase				
Item:	(De	ecrease)				
Beginning of Year Unfunded Actuarial Liability	\$	399.3				
Interest on Unfunded Actuarial Liability		28.9				
Amortization Payment		(37.9)				
Asset Experience		27.5				
Salary Experience		28.4				
Other Liability Experience		26.8				
COLA		57.4				
Benefit Changes		-				
Assumption/Method Changes		-				
Total Increase/(Decrease)	\$	131.1				
End of Year Unfunded Actuarial Liability	\$	530.4				

# General Assembly Retirement System Analysis of the Increase in the Unfunded Accrued Liability

As of July 1, 2006 (Amounts expressed in millions)

Item:	Amount of Increase (Decrease)			
Beginning of Year Unfunded Actuarial Liability	\$	22,845		
Interest on Unfunded Actuarial Liability		1,656		
Required Amortization Payment		(1,883)		
Asset Experience		435		
Salary Experience		-		
Other Liability Experience		606		
Benefit Changes		-		
Assumption/Method Changes		-		
Total Increase/(Decrease)	\$	814		
End of Year Unfunded Actuarial Liability	\$	23,659		

# Judges and Solicitors Retirement System Analysis of the Increase in the Unfunded Accrued Liability As of July 1, 2006

(Amounts expressed in millions)

Item:	Inc	crease)
Beginning of Year Unfunded Actuarial Liability	\$	86.0
Interest on Unfunded Actuarial Liability		6.2
Amortization Payment		(4.4)
Asset Experience		1.0
Salary Experience		(0.3)
Other Liability Experience		(1.7)
COLA		(0.3)
Benefit Changes		-
Assumption/Method Changes		-
Total Increase/(Decrease)	\$	0.5
End of Year Unfunded Actuarial Liability	\$	86.5

**Solvency Test** (Dollar amounts expressed in thousands)

	Valuation		(1) Active Member	(2) Retirants &		(3) tive Members ployer Funded		Valuation		Aggregate A	
	<b>Date</b>	Co	ntributions	<b>Beneficiaries</b>	Portion)		Assets		(1)	(2)	(3)
SCRS	7-01-06	\$	5,229,175	\$ 17,800,254	\$	8,989,090	\$	22,293,446	100%	95.9%	0.0%
	7-01-05		4,915,423	16,891,954		8,410,094		21,625,510	100%	98.9%	0.0%
	7-01-04		4,750,077	14,184,765		7,043,010		20,862,659	100%	100%	27.4%
	7-01-03		4,627,360	13,240,368		6,531,203		20,197,936	100%	100%	35.7%
	7-01-02		4,512,402	11,600,395		6,333,777		19,298,174	100%	100%	50.3%
	7-01-01		4,339,747	10,367,913		6,454,487		18,486,773	100%	100%	58.6%
	7-01-00		4,563,513	7,484,050		7,367,149		17,286,108	100%	100%	71.1%
	7-01-99		4,278,861	6,944,021		5,075,556		16,120,513	100%	100%	96.5%
	7-01-98		3,972,263	6,305,903		5,674,179		14,946,070	100%	100%	82.3%
	7-01-97		3,657,217	5,866,156		5,453,806		13,621,362	100%	100%	75.1%
PORS	7-01-06	\$	622,008	\$ 1,668,449	\$	1,175,824	\$	2,935,841	100%	100%	54.9%
	7-01-05		585,701	1,530,199		1,058,030		2,774,606	100%	100%	62.0%
	7-01-04		548,699	1,415,627		1,020,258		2,616,835	100%	100%	64.0%
	7-01-03		516,313	1,265,173		963,363		2,511,369	100%	100%	75.8%
	7-01-02		492,178	1,136,998		898,700		2,351,100	100%	100%	80.3%
	7-01-01		464,217	977,769		882,271		2,197,982	100%	100%	85.7%
	7-01-00		427,449	844,631		823,911		2,008,554	100%	100%	89.4%
	7-01-99		389,456	783,042		725,739		1,844,517	100%	100%	92.6%
	7-01-98		352,424	702,155		678,999		1,684,641	100%	100%	92.8%
	7-01-97		314,217	645,356		611,243		1,512,390	100%	100%	90.4%

Note: Effective 7-1-1999, actuarial assumptions were changed as a result of a 5 year experience study.

Effective for the 7-1-2000 valuation, eligibility for an unreduced retirement annuity under SCRS was reduced from 30 years of service to 28 years. The SCRS also adopted a deferred retirement option plan.

Effective 7-1-2003, actuarial assumptions were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, disability incidence assumptions and withdrawal rate assumptions were revised for both SCRS and PORS. In addition, the assumed mortality rates for retired SCRS members were revised, along with the assumed mortality rates of active and disabled members for PORS.

Effective 7-1-2005, actuarial assumptions were changed to include an increase in member contributions to 6.25 percent of earnings for fiscal year 2006 and 6.50 percent beginning fiscal year 2007; all return-to-work retirees and those TERI participants who joined the system after 7-01-2005 contributing at the same rate as active employees; a reduction in the interest rate credited to accumulated employee contributions from 6 percent to 4 percent; and the addition of a guaranteed COLA equal to the change in CPI, but not to exceed 1 percent, for SCRS retirees beginning the July 1st following a full year of annuity payments.

**Solvency Test** (Dollar amounts expressed in thousands)

	Valuation Date	A Me	(1) active ember ributions		(2) Setirants & neficiaries	(3) tive Members ployer Funded Portion)	,	Valuation	Portion of Liabilities (1)	Covered by	
	— Date	Conti	ributions	Dei	lenciaries	 PORTION)		Assets		(2)	(3)
GARS	7-01-06	\$	8,094	\$	51,870	\$ 9,770	\$	46,075	100%	73.2%	0.0%
	7-01-05		8,024		51,353	9,784		46,316	100%	74.6%	0.0%
	7-01-04		8,485		48,126	11,721		45,087	100%	76.1%	0.0%
	7-01-03		8,324		46,781	11,515		44,682	100%	77.7%	0.0%
	7-01-02		9,470		47,485	16,091		43,841	100%	72.4%	0.0%
	7-01-01		9,329		45,013	13,949		42,788	100%	74.3%	0.0%
	7-01-00		9,220		39,409	15,318		40,730	100%	80.0%	0.0%
	7-01-99		8,459		40,298	14,744		38,685	100%	75.0%	0.0%
	7-01-98		7,898		38,282	14,150		36,260	100%	74.1%	0.0%
	7-01-97		7,224		39,214	13,614		33,627	100%	67.3%	0.0%
JSRS	7-01-06	\$	21,857	\$	112,823	\$ 76,704	\$	124,837	100%	91.3%	0.0%
	7-01-05		20,005		110,876	73,966		118,888	100%	89.2%	0.0%
	7-01-04		17,640		106,159	61,253		112,016	100%	88.9%	0.0%
	7-01-03		16,545		96,409	53,701		106,114	100%	92.9%	0.0%
	7-01-02		16,162		101,716	48,562		100,074	100%	82.5%	0.0%
	7-01-01		15,254		97,512	46,480		94,795	100%	81.6%	0.0%
	7-01-00		12,979		94,633	37,019		87,536	100%	78.8%	0.0%
	7-01-99		12,286		87,464	34,522		81,780	100%	79.5%	0.0%
	7-01-98		11,424		81,193	32,139		75,699	100%	79.2%	0.0%
	7-01-97		10,819		70,724	30,642		68,980	100%	82.2%	0.0%

Note: The 7-1-2002, GARS valuation reflected the change in legislation effective January 1, 2003, which allows a member who has attained the age of 70 or has 30 years of service to retire and draw an annuity while continuing to serve in the General Assembly.

Effective 7-1-2003, actuarial assumptions for GARS and JSRS were changed as a result of a 5 year experience study. The rates of salary increase assumption, the assumed retirement rates, and disability incidence assumptions were revised.

Effective 7-1-2005, actuarial assumptions were changed to include updated normal retirement rates based on analysis of historical normal retirement experience.



February 1, 2007

State Budget and Control Board South Carolina Retirement Systems Columbia, South Carolina 29211

Re: Certification and Statement Regarding the Actuarial Valuation of the South Carolina National Guard Retirement System as of July 1, 2006

Dear Members of the Board:

#### **Applicable Laws**

The law governing the operation of the South Carolina National Guard Retirement System provides that actuarial valuation of the assets and liabilities of the System shall be made at least every other year. We have prepared the annual actuarial valuation of the Retirement System as of July 1, 2006.

#### **Funding Objective**

A funding objective of the System is that the contributions will remain relatively level over time. As these contributions are set by the Board, the valuation is used to determine the sufficiency of the contributions to maintain or improve the measures of the System's funding progress (i.e. funded ratio, funding period) and provide for the complete funding of all actuarial liabilities within 30 years.

#### **Funding Methodology**

The entry age normal actuarial cost method determines the System's normal cost, the cost of the current year's benefit accrual. Additionally, the method determines the actuarial liability, the value of benefits already earned by active and retired members due to past service. A smoothing technique is utilized to produce a market-related actuarial value of assets with the goal of dampening the impact of investment return volatility. The *funded ratio* is the actuarial value of assets as a percentage of the actuarial liability.

An unfunded actuarial liability exists to the extent the System's actuarial liability exceeds its actuarial value of assets. The contribution amount in excess of the System's normal cost is the level dollar amount available to amortize an unfunded actuarial liability. The System's *funding period* is the resulting number of years necessary to fully amortize the unfunded actuarial liability with the available contributions.

#### **Assumptions**

Actuarial assumptions are necessary to estimate the future economic and demographic experience of the System. The actuarial assumptions used in the valuation are internally consistent and reasonably based on the actual experience of the System.

665 Molly Lane, Suite 150, Woodstock, GA 30189 Phone (678) 388-1700 • Fax (678) 388-1730 www.CavMacConsulting.com



State Budget and Control Board South Carolina Retirement Systems February 1, 2007 Page 2

The current actuarial assumptions are in accordance with the applicable Actuarial Standards of Practice, as well as the parameters set forth in the Governmental Accounting Standards Board (GASB) Statement No. 25, Financial Reporting for Defined Benefit Pension Plans and Note Disclosures for Defined Contribution Plans.

The results and conclusions of this report are based on the valuation as of July 1, 2006. Differences between our projections and actual amounts depend on the extent to which future experience conforms exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience.

#### Data Reliance

In preparing the valuations, we, as the actuary, relied on data provided by the System. In fulfillment of the scope of our assignment, we performed a limited review of the data for consistency and reasonableness and did not find material defects in the census data.

#### Supporting Schedules

Our firm, as actuary, is responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section, beginning with the information for the July 1, 2004 to June 30, 2005 period. Information for previous years was supplied by other actuarial firms employed by the System at that time.

#### Certification

Based on the results of the July 1, 2006 valuation, we believe that the valuation is appropriately reflecting the System's long term obligations and the current contribution levels are sufficient to fund the liabilities over a reasonable time frame, and based on these criteria may be deemed actuarially sound.

I, Edward A. Macdonald, President of Cavanaugh Macdonald Consulting, LLC, am a Member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein. On the basis of the foregoing, I certify that, to the best of my knowledge this report is complete and accurate and has been prepared in accordance with South Carolina's statutes and generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board (ASB) and the Code of Professional Conduct and Qualification Standards for Public Statements of Actuarial Opinion of the American Academy of Actuaries.

Respectfully submitted,

Edward A. Macdonald, ASA, FCA, MAAA

President

# National Guard Retirement System Valuation Balance Sheet\*

As of Actuarial Valuation at July 1, 2006 (Amounts expressed in thousands)

			July	1, 2006
1.	<u> </u>	<u>assets</u>		
	a.	Current Assets (Actuarial Value)	\$	14,046
	b.	Present Value of Future Member Contributions	\$	-
	c.	Present Value of Future Employer Contributions		
		i) Normal Contributions	\$	545
		ii) Accrued Liability Contributions		34,709
		iii) Total Future Employer Contributions	\$	35,254
	d.	Total Assets	\$	49,300
2.	<u>Lia</u>	<u>bilities</u>		
	a.	Benefits to be Paid to Retired Members and Beneficiaries	\$	22,366
	b.	Benefits to be Paid to Former Members Entitled to Deferred Pensions	\$	16,312
	C.	Benefits to be Paid to Current Active Members	\$	10,622
	d.	Total Liabilities	\$	49,300

<sup>\*</sup>Determined as of the valuation date. Does not include unfunded liability for legislation which allows those guardsmen who became members of the National Guard after June 30, 1993, to become eligible for membership in the system effective January 1, 2007.

# National Guard Retirement System Results of the Valuation as of July 1, 2006\* (Dollar amounts expressed in thousands)

		Jul	y 1, 2006
1.	Actuarial Present Value of Future Benefits		
	<ul> <li>a. Present Retired Members and Beneficiaries</li> <li>b. Former Members Entitled to Deferred Pensions</li> <li>b. Present Active Members</li> <li>c. Total Actuarial Present Value</li> </ul>	\$ 	22,366 16,312 10,622 49,300
2.	Present Value of Future Normal Contributions	Ψ	43,300
	<ul><li>a. Employees</li><li>b. Employer</li><li>c. Total Future Normal Contributions</li></ul>	\$ <del>\$</del>	545 545
3.	Actuarial Liability	\$	48,755
4.	Current Actuarial Value of Assets	\$	14,046
5.	<u>Unfunded Actuarial Liability</u>	\$	34,709
6.	Unfunded Actuarial Liability Annual Payment Amount	\$	3,444
7.	Unfunded Actuarial Liability Liquidation Period		30 years

<sup>\*</sup>Determined as of the valuation date. Does not include unfunded liability for legislation which allows those guardsmen who became members of the National Guard after June 30, 1993, to become eligible for membership in the system effective January 1, 2007.

### National Guard Retirement System Summary of Actuarial Assumptions and Methods

#### 1. Investment Return to be Earned by Fund

7.25% per annum net of investment and administrative expenses, compounded annually.

#### 2. <u>Separations from Active Service</u>

Representative values of the assumed annual rates of separation from active service are as follows:

		-
Annual	Ratae	Ot.
Alliua	Nates	VI.

Retire			
Under Age 60 with 20 Years of Service	Age 60 with 20 Years of Service or 30 Years of Service	<u>Death</u>	Disability <sup>1</sup>
		.0005	.0009
		.0006	.0011
		.0009	.0015
.100		.0012	.0022
.100		.0022	.0036
.100		.0039	.0061
.100	1.000	.0061	.0101
	1.000	.0092	.0163
	Under Age 60 with 20 Years of Service .100 .100 .100	Under Age 60 with 20 Years of Service or 30 Years of Service  .100 .100 .100 .100 .100 .100 .100 .1	Age 60 with 20 Years of Service or 30 Years of Service Death  .0005 .0006 .0009 .100 .100 .100 .0012 .100 .0022 .100 .100

<sup>&</sup>lt;sup>1</sup>Applied only to members with less than 20 years of service.

No rates of withdrawals are assumed.

#### 3. Mortality After Retirement

The 1983 Group Annuity Mortality Table rates for males is used.

#### 4. Marriage Assumption

Not applicable because no death benefits are payable.

#### 5. Asset Valuation Method

The actuarial value of assets recognizes a portion of the difference between the market value of assets and the expected value of assets, based on the assumed valuation rate of return. The amount recognized in addition to the expected return each year is 20 percent of the difference between the market value and expected actuarial value.

#### 6. Cost Methods

Projected benefit method with entry age normal cost and open-end accrued liability. Gains and losses are reflected in the unfunded accrued liability.

#### 7. Administrative and Investment Expenses

The investment return assumption represents the expected return net of all administrative and investment expenses.

#### 8. <u>Changes from Prior Valuation</u>

There have been no changes since the prior valuation.

#### 9. Adoption Date

Cavanaugh Macdonald Consulting, LLC, is the consulting actuary responsible for the actuarial trend data in the financial section of the report and the supporting schedules in the actuarial section. The exact adoption date for the current actuarial assumptions and methods is unknown. The discount rate and retirement rates were last changed for the 1996 valuation. The death, disability, and mortality rates were changed in 1990 by the prior actuary.

#### National Guard Retirement System Development of Actuarial Value of Assets (Amounts expressed in thousands)

_	Ite	ation as of y 1, 2006	
1.	Excess (Shortfall) of Investment and Previous Three Years:	Income for Current Year	
	a. Current Year		\$ (906)
	<ul><li>b. Current Year - 1</li><li>c. Current Year - 2</li></ul>		(363) (565)
	d. Current Year - 3		N/A
2.	Deferral of Excess (Shortfall) of I	nvestment Income for:	
	-	30% Deferral)	\$ (724)
	-	50% Deferral)	(218)
	-	10% Deferral)	(226)
	d. Current Year - 3 (2 e. Total Deferred for Year	20% Deferral)	 (1,168)
3.	Market Value of Plan Assets, End	d of Year	\$ 12,878
4.	Preliminary Actuarial Value of P	lan Assets. End of Year	
	(Item 3 - Item 2.e.)		\$ 14,046
5.	Actuarial Value of Assets Corrido	= :	
	a. 80% of Market Value of Ass	•	\$ 10,302
	b. 120% of Market Value of As	ssets, End of Year	\$ 15,454
6.	Final Actuarial Value of Plan Ass		
	But Not Less Than Item 5.a., or	Greater Than Item 5.b.)	\$ 14,046

# National Guard Retirement System Schedule of Active Member Valuation Data As of July 1, 2006

Valuation Date	Number of Employers	Number of Active Members	Annual Payroll (in thousands)	Annual Average Pay	Percentage Increase In Average Pay
7-01-06	1	2,502	N/A	N/A	N/A
6-30-05	1	2,864	N/A	N/A	N/A
6-30-04	1	3,425	N/A	N/A	N/A
6-30-02	1	4,010	N/A	N/A	N/A
6-30-00	1	5,289	N/A	N/A	N/A
6-30-98	1	9,604	N/A	N/A	N/A
6-30-96	1	11,198	N/A	N/A	N/A

# National Guard Retirement System The Number and Annual Retirement Allowances of Retired Members As of July 1, 2006

(Dollar amounts expressed in thousands)

NUMBER	RETI	INUAL REMENT WANCES
2,890	\$	2,744 13
2,903		2,757
N/A N/A N/A		N/A N/A N/A
N/A N/A		N/A N/A
N/A		N/A
2,903	\$	2,757
_	2,890 13 2,903 N/A N/A N/A N/A N/A	NUMBER RETII ALLO 2,890 \$ 13 2,903 N/A N/A N/A N/A N/A

# National Guard Retirement System Schedule of Retirants Added to and Removed from Rolls (Dollar amounts except average allowance expressed in thousands)

Year	Added to Rolls* Annual		Removed from Rolls* Annual		Rolls End of the Year Annual			% Increase in Annual		verage Annual		
Ended	Number				owances			owances	Allowances	Allowances		
7-01-06	303	\$	276	90	\$	91	2,903	\$	2,757	7.2%	\$	950
6-30-05	244		214	89		81	2,690		2,572	5.5%		956
6-30-04	-		-	-		-	2,535		2,439	12.9%		962
6-30-02	-		-	-		-	2,213		2,160	10.9%		976
6-30-00	-		-	-		-	1,962		1,947	7.7%		992
6-30-98	-		-	-		-	1,801		1,808	13.6%		1,004
6-30-96	-		-	-		-	1,550		1,591	18.9%		1,026

<sup>\*</sup>Sufficient data is not available to complete these columns for years ending before June 30, 2005.

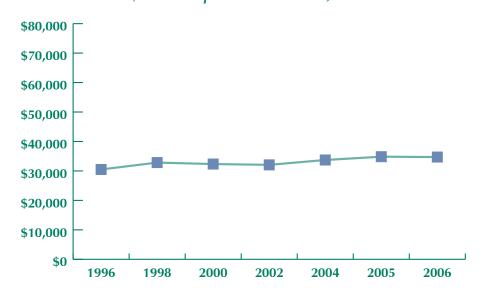
# Summary of Accrued and Unfunded Accrued Liabilites (Dollar amounts expressed in thousands)

NGRS	Valuation Date	Valuation Assets	Aggregate Accrued Liabilities	Actuarial Assets as a % of Actuarial Accrued Liabilities	Unfunded Accrued Liabilities	Annual Active Member Payroll	UAL as a % of Active Member Payroll
	7-01-06	\$ 14,046	\$ 48,755	28.8%	\$ 34,709	N/A	N/A
	6-30-05	12,151	46,985	25.9%	34,835	N/A	N/A
	6-30-04	13,567	47,281	28.7%	33,714	N/A	N/A
	6-30-02	12,608	44,678	28.2%	32,069	N/A	N/A
	6-30-00*	11,089	43,427	25.5%	32,338	N/A	N/A
	6-30-98	8,640	41,478	20.8%	32,839	N/A	N/A
	6-30-96	6,259	36,756	17.0%	30,497	N/A	N/A

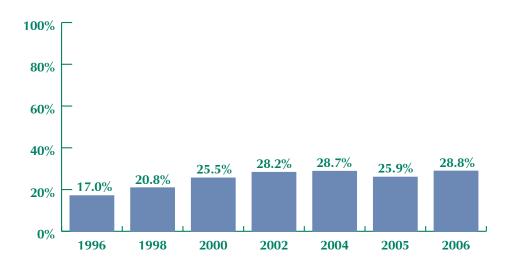
<sup>\*</sup>As of April 30, 2000.

# **National Guard Retirement System Funding Progress with Funded Ratios**

**Unfunded Accrued Liabilities** (Amounts expressed in thousands)



Funded Ratios (Actuarial assets as a percentage of actuarial accrued liabilities)



# National Guard Retirement System Analysis of the Increase in the Unfunded Accrued Liability

As of July 1, 2006 (Amounts expressed in thousands)

Item:	I	Amount of Increase (Decrease)		
Beginning of Year Unfunded Actuarial Liability	\$	34,835		
Interest on Unfunded Actuarial Liability		2,526		
Amortization Payment		(3,758)		
Asset Experience		367		
Salary Experience		-		
Other Liability Experience		739		
COLA		-		
Benefit Changes		-		
Assumption/Method Changes		-		
Total Increase/(Decrease)	\$	(126)		
End of Year Unfunded Actuarial Liability	\$	34,709		

## **Solvency Test** (Dollar amounts expressed in thousands)

	(1) Active Valuation Member (2) Date Contributions Retirants			(2) Retirants	(3) Active Members Valuation (Employer Funded) Assets			Portion of Aggregate Accrued Liabilities Covered by Assets (1) (2) (3)			
				- Ketirunts	(Emp	- Ioyer runded)		7100010			(3)
NGRS	7-01-06	\$	-	\$ 22,366	\$	26,389	\$	14,046	N/A	62.8%	0.0%
	6-30-05		-	20,804		26,181		12,151	N/A	58.4%	0.0%
	6-30-04		-	19,704		27,577		13,567	N/A	68.9%	0.0%
	6-30-02		-	17,597		27,081		12,608	N/A	71.6%	0.0%
	6-30-00		-	16,186		27,241		11,089	N/A	68.5%	0.0%
	6-30-98		-	14,651		26,827		8,640	N/A	59.0%	0.0%
	6-30-96		-	13,138		23,618		6,259	N/A	47.6%	0.0%

### **Summary of Basic Provisions**

SCRS	PORS	GARS	JSRS	NGRS	
1. Membership					
All permanent, full-time and part-time employees of covered employers must join unless specifically exempted by statute or are eligible and elect to participate in the State ORP.	To be eligible for PORS membership, an employee must be required by the terms of his employment, by election or appointment, to preserve public order, protect life and property, and detect crimes in the state; to prevent and control property destruction by fire; be a coroner or deputy coroner in a full-time permanent position; or be a peace officer employed by the Department of Corrections, the Department of Juvenile Justice, or the Department of Mental Health. Probate judges and coroners may elect membership in PORS. Magistrates are required to participate in PORS for service as a magistrate. PORS members, other than magistrates and probate judges, must also earn at least \$2,000 per year and devote at least 1,600 hours per year to this work, unless exempted by statute.	Generally, all persons are required to participate upon taking office as member of the General Assembly unless exempted by statute.	All solicitors, judges of a Circuit or Family Court, and justices of the Court of Appeals and Supreme Court are required to participate upon taking office unless exempted by statute.	Individuals serving in the South Carolina National Guard.	
2. Employee Contribut	ions				
<b>Class I</b> 5% of earnable compensation	Class I \$21 per month	10% of earnable compensation	10% of earnable compensation	Not applicable as this is a non-contributory plan	
<b>Class II</b> 6.5% of earnable compensation	<b>Class II</b> 6.5% of earnable compensation				
3. Employer Contribut	ions				
Class I 4.25% of earnable com- pensation	<b>Class I</b> 7.8% of earnable compensation	Annual lump-sum appropriation	41.65% of earnable compensation	Annual lump-sum appropriation	
Class II 8.05% of earnable com- pensation	Class II 10.3% of earnable com- pensation				
<b>Group Life Insurance</b> 0.15% of earnable compensation	<b>Group Life Insurance</b> 0.2% of earnable compensation	<b>Group Life Insurance</b> Included within annual lump-sum appropriation	<b>Group Life Insurance</b> 0.45% of earnable compensation	<b>Group Life Insurance</b> Not applicable	
Accidental Death Program Not applicable	Accidental Death Program 0.2% of earnable compensation	Accidental Death Program Not applicable	Accidental Death Program Not applicable	Accidental Death Program Not applicable	

SCRS	PORS	GARS	JSRS	NGRS
4. Requirements for So	ervice Annuity			
5 years earned service	5 years earned service	8 years service	10 years earned service in	20 years total creditable
The member is entitled to a deferred reduced annuity at age 60.	The member is entitled to a deferred annuity at age 55.	The member is entitled to a deferred annuity at age 60.	position of judge; 8 years earned service in position of solicitor.  For members who joined prior to 7/1/2004, member is eligible for a deferred annuity at age 55 with 12 years in position. For members who joined after 6/30/2004, member is eligible for a deferred annuity at age 65.	military service, at least 15 of which must have been served in the South Carolina National Guard. Additionally, the last 10 years of service must have been served in the South Carolina National Guard.
5. Normal Retirement	Age			
Age 65	Age 55	Age 60	Varies depending on service	Age 60
6. Requirements for Fu	ull Service Retirement			
Age 65 or 28 years of credited service	Age 55 with 5 years of service or 25 years of credited service	Age 60 or 30 years of service	Age 70 with 15 years of service	Age 60 provided the member was honorably discharged from active
The member must have a minimum of five years of earned service to qualify	The member must have a minimum of five years of	s of   to serve in the General	Age 65 with 20 years of service	duty with at least 20 years of total creditabale military service. Of that
for retirement.	earned service to qualify for retirement.		25 years of service as judge regardless of age	20 years of service, 15 years, and the final 10 years, must have been served in the South Caro-
			24 years of service as solicitor regardless of age	lina National Guard.
			Age 65 with 4 years earned service as judge or solicitor and at least 25 years other service with the state if a member as of 6/30/2004.	
7. Early Retirement				
Age 60 with 5% reduction for each year of age under age 65	Age 55 with five years of service credit  The member must have a	Age 60 with 8 years of service credit	Age 55 with 10 years of service in the position of a judge or 8 years of service in the position of	Not applicable
Age 55 with 25 years service, reduced 4% for each year of service under 28	minimum of five years of earned service to qualify for early retirement.		a solicitor for members who joined the system prior to 7/1/2004. For members who joined	
The member must have a minimum of five years of earned service to qualify for early retirement.			after 6/30/2004, the age requirement is 65.	
8. Formula for Normal	Service Retirement			
Class I 1.45% of Average Final Compensation times years of credited service	Class I \$10.97 per month for each year of service	4.82% of earnable com- pensation times years of credited service	Annual allowance of 71.3% of the current active salary of the member's position.	For 20 years of service, retirees receive a \$50 monthly benefit. For each year of service beyond the
Class II 1.82% of Average Final Compensation times	Class II 2.14% of Average Final Compensation times		Benefit formula increases by 2.67% for each year of	20 years, up to 30 years of service, the retiree receives an additional \$5.
years of credited service	years of credited service		Continued on Next Page	Continued on Next Page

**SCRS PORS GARS JSRS NGRS Formula for Normal Service Retirement (continued)** active service over 25 years The maximum benefit for judges or over 24 years a retiree can receive is for solicitors. The monthly \$100. retirement allowance may not exceed 90% of the current active salary for the member's position. A member retiring after 2003 will receive an additional benefit equal to employee contributions and accumulated interest remitted after reaching the maximum 90% benefit. **Requirements for Disability Retirement** 5 years of earned service 5 years of earned service 5 years of credited service 5 years of credited service Not applicable unless injury is job reunless injury is job related lated 10. Formula for Disability Retirement The disability retirement The disability retirement The disability retirement The disability retire-Not applicable benefit based on a projecbenefit is based on a probenefit is based on the ment benefit is based on tion of service credit to jection of service credit to greater of the following the service retirement age 65 with an actuarial formula. age 55. options: reduction. Service benefit based upon actual credited service or 50% of service benefit based on projection of service to earlier of age 60 or 35 years service. 11. Benefit Options Formula benefit as calcu-**Maximum Benefit** Option A Option A **Maximum Benefit** (Maximum/Retiree Only) (Maximum/Retiree Only) (Retiree Only) Retiree/One-Third lated in item 8. Formula benefit as Formula benefit as calcu-Formula benefit as calcu-Spouse) calculated in item 8. Nonlated in item 8. Nonlated in item 8. Non-Formula as calculated recovered contributions recovered contributions recovered contributions in item 8. Continued paid upon death. paid upon death. paid upon death. annuity of one-third of member's benefit to a spouse beneficiary upon Option B Option B Option 1 (100% - 100% Joint Re-(100% - 100% Joint Re-Provides a reduced (from death of retiree or return tiree/Survivor) tiree/Survivor) the Maximum Benefit) of contributions to a Provides a reduced (from Provides a reduced (from lifetime benefit that upon designated non-spouse Option A) lifetime benefit Option A) lifetime benefit retiree's death continues beneficiary. that upon retiree's death that upon retiree's death to retiree's beneficiary. continues to retiree's continues to retiree's Benefit will not revert **Optional Allowance** beneficiary. beneficiary. to Maximum if all of the Provides a reduced (from retiree's beneficiaries the Maximum Benefit) **Option C Option C** predecease the retiree. lifetime annuity that upon the retiree's death (100% - 50% Joint Re-(100% - 50% Joint Retiree/Survivor) tiree/Survivor) Option 2 will continue at one-third Provides a reduced of the retiree's annuity to Provides a a reduced Provides a a reduced (from Option A) lifetime (from Option A) lifetime (from the Maximum a non-spouse beneficiary benefit that upon retiree's benefit that upon retiree's Benefit) lifetime benefit (or in equal shares to death will continue to remultiple beneficiaries). death will continue to rethat upon retiree's death tiree's beneficiary at 50% will continue to retiree's tiree's beneficiary at 50% of the retiree's annuity. of the retiree's annuity. beneficiary at 50% of the retiree's annuity. Benefit will not revert to Maxi-**Continued on Next Page Continued on Next Page Continued on Next Page** 

SCRS PORS GARS ISRS NGRS

#### 11. Benefit Options (continued)

Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A. Note: If a retiree selects Option B or Option C and all of the retiree's beneficiaries predecease the retiree, the retiree's benefit will revert to Option A. mum if all of the retiree's beneficiaries predecease the retiree.

Revert to Maximum (1A or 2A)
This feature will allow benefits to be changed to the Maximum Benefit if the retiree selects Option 1 or Option 2 and all of the retiree's beneficiaries predecease the retiree.

#### 12. Deferred Retirement Option Programs

Upon meeting retirement eligibility, a member can elect to retire and continue working under the Teacher and Employee Retention Incentive (TERI) program for a maximum of five years, after which employment will cease. During TERI participation, the retirement annuity will not be paid to TERI retirees, but monthly benefits will be accumulated in TERI accounts and will be distributed to the members upon termination of employment. For members retiring after June 30, 2005, a payment for unused annual leave is not included in calculating TERI benefits. Upon termination, however, benefits will be increased prospectively to include payment for up to 45 days annual leave paid at termination of employment. No interest is credited to the TERI account. TERI participants who entered the program after June 30, 2005, must continue to contribute at the same rate as active members. Those who entered prior to July 1, 2005, make no employee contributions while participating in the TERI program. No additional service credit is earned during this period and participants are ineligible for disability retirement benefits.

Not applicable

Not applicable

Effective June 27, 2007, a JSRS member who reaches maximum service eligibility (32 years for judge or 31 years for solicitor) prior to normal retirement age of 60 may elect to immediately begin accruing annuity benefits in a deferred retirement account while continuing employment. Upon attaining age 60, accumulated deferred benefits are distributed from the plan.

Not applicable

SCRS	PORS	GARS	JSRS	NGRS
13. Post Retirement Increase				
Guaranteed increase of up to 1 percent provided that increase in Consumer Price Index as of prior December 31 is at least 1 percent. Increases in excess of 1 percent, up to a total of 4%, may be approved if the CPI increase exceeded 1 percent and if the unfunded liability amortization period for SCRS does not exceed 30 years.	Increase in Consumer Price Index, up to 4%. (Increases are not guaranteed and must be approved annually sub- ject to compliance with statute.)	Retired member receives benefit based on current salary for member's posi- tion.	Retired member receives benefit based on current salary for member's posi- tion.	Cost-of-living increases are not provided.
14. Accidental Death Program				
Not applicable	Provides 50% of earnable compensation at time of accidental death in the line of duty as an annuity to either the surviving spouse, children, or parents.	Not applicable	Not applicable	Not applicable
15. Group Life Insurance Benefits				
<ul> <li>Lump-sum payment equal to one year's sal- ary payable to the ben- eficiary upon the death of an active or working retired contributing member with at least one year of service.</li> </ul>	• Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	• Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	• Lump-sum payment equal to one year's salary payable to the beneficiary upon the death of an active member with at least one year of service.	Not applicable
<ul> <li>No service requirement for death resulting from an injury arising out of the actual per- formance of duties for an active member.</li> </ul>	<ul> <li>No service require- ments for death result- ing from an injury aris- ing out of the actual performance of duties for an active member.</li> </ul>	<ul> <li>No service requirement for death resulting from an injury arising out of the actual per- formance of duties for an active member.</li> </ul>	<ul> <li>No service requirement for death resulting from an injury arising out of the actual per- formance of duties for an active member.</li> </ul>	
• Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon years of service at retirement. TERI participants and working retired contributing members are eligible for an increased group life insurance benefit payment equal to their annual salary in lieu of the standard retired member benefit.	• Lump-sum payment to retiree's beneficiary of up to \$6,000 based upon year of service at retirement. Retired contributing members are eligible for an increased group life insurance benefit payment equal to their annual salary in lieu of the standard retired member benefit.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	Lump-sum payment to retiree's beneficiary of up to \$3,000 based upon years of service at retirement.	
16. Withdrawal of Empl	oyee Contributions			
Accumulated contributions, plus interest, payable upon request 90 days after termination of all covered employment.	Accumulated contribu- tions, plus interest, pay- able upon request 90 days after termination of all covered employment.	Accumulated contribu- tions, plus interest, paid as promptly as feasible upon request after ter- mination of all covered employment.	Accumulated contribu- tions, plus interest, paid as promptly as feasible upon request after ter- mination of all covered employment.	Not applicable as this is a non-contributory plan